EXECUTIVE SUMMARY

INTRODUCTION

This Final Staff Assessment (FSA)/ Environmental Assessment (EA) contains the California Energy Commission and Western Area Power Administration (Western) staff's independent analyses and recommendations on the East Altamont Energy Center (EAEC).

The EAEC and related facilities such as the electric transmission lines, the switching station, natural gas lines, water supply lines, and wastewater lines are under the Energy Commission's jurisdiction (Pub. Resources Code § 25500). When issuing a license, the Energy Commission is the lead state agency (Pub. Resource Code § 25519(c)) under the California Environmental Quality Act (Pub. Resource Code § 21000 et seq.), and its process is functionally equivalent to the preparation of an environmental impact report (Pub. Resources Code, § 21080.5; Cal. Code Regs., tit. 14, § 15251(k)).

It is the responsibility of the Energy Commission staff to complete an independent assessment of the project's potential effects on the environment, the public's health and safety, and determine whether the project conforms with all applicable laws, ordinances, regulations and standards (LORS). The staff also recommends measures to mitigate potential significant adverse environmental impacts and conditions for the construction, operation, and eventual closure of the project, if approved by the Energy Commission.

The project is also under the jurisdiction of Western, as the applicant has applied to interconnect its power plant with Western's transmission system. Western is a Federal power marketing agency under the U.S. Department of Energy that operates and maintains about 800 miles of high-voltage transmission lines and associated facilities in Northern California, including the Tracy Substation. Western's mission is to market power from federal hydroelectric power plants such as those at Shasta and Folsom dams.

Federal law requires Western to provide entities, such as merchant power plants, open access to transmission services so that they can move power to load areas. Western provides these services if there is available capacity on the transmission line. Western is the lead federal agency for the project.

To streamline the process and eliminate overlap and duplication between the state and federal processes, this joint Energy Commission FSA/ Western EA contains the evaluation of the project by the staffs of the California Energy Commission and Western. This document will be the basis for the decisions of both the Energy Commission and Western. This analysis includes both the construction and operation of the proposed facility. The analyses contained in this FSA/ EA were prepared in accordance with:

Public Resources Code section 25500 et seq.;

the California Code of Regulations, title 20, section 12001 et seq.;

the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) and its guidelines (Cal. Code Regs, tit. 14, § 15000 et seq.);

the National Environmental Policy Act (NEPA) (42 U.S.C. § 4371 et seq.) and its implementing regulations (40 C.F.R. § 1500 et seq.); and

the Department of Energy NEPA Implementing Procedures and Guidelines (10 C.F.R. § 1021).

With respect to the California Energy Commission's process, this FSA is not the decision document for these proceedings. It represents conclusions at the staff level only. The final decision will be made by the Commissioners of the California Energy Commission only after the completion of the evidentiary hearings. The Commissioners will consider the recommendations of all interested parties, including those of the Energy Commission staff; the applicant; intervenors; members of the public; and local, state, and federal agencies, before making a final decision on the application to construct and operate the EAEC.

For Western, this document serves as the Final EA, which serves to support a Western determination on whether or not to prepare an Environmental Impact Statement (EIS). For purposes of the NEPA process, Western will determine the significance of impacts in a separate determination issued after the Final EA. Western will consider the Final EA and subsequent public, agency and tribal comments on the Final EA in making this determination. If Western determines there are no significant impacts it will issue a Finding of No Significant Impact (FONSI). A preliminary version of the FONSI will be made available for public review for at least 30 days. Publishing a final FONSI will complete the assessment portion of the federal environmental process. If Western determines there are significant impacts, it will publish a notice of intent to prepare an EIS in the Federal Register and distribute copies to the project's mailing list. An EIS will then be developed using the results of the Final EA and other analyses, and issued for public comment. If an EIS is needed, Western will independently publish a final EIS and Record of Decision before completing the federal environmental process.

For purposes of the NEPA process, Western's conclusions about significance may vary from the conclusions reached by Energy Commission staff and the Energy Commission. Western will consider the FSA/EA findings and Energy Commission determinations, but may apply different weightings to the Commission staff's significance criteria or may consider different criteria altogether. For example, Federal regulations do not apply to the proposed project's potential impacts on visual resources. Therefore, Western is likely to put greater emphasis on compliance with local ordinances and plans. Western will also consider other factors such as the strong presence of the Tracy Substation and the many transmission lines radiating from it.

PROJECT LOCATION AND DESCRIPTION

On March 29, 2001, East Altamont Energy Center, LLC, a wholly owned subsidiary of Calpine Corporation, filed an Application for Certification (AFC) with the Energy Commission for a nominal 1,100 MW power plant called the East Altamont Energy Center (EAEC).

The applicant's proposed site lies within a 174-acre parcel of land under the applicant's control, located in unincorporated Alameda County, approximately 1 mile west of the San Joaquin County line and 1 mile southeast of the Contra Costa County line. The site is bordered by Byron Bethany Road to the north, Kelso Road to the south, and Mountain House Road to the west. If built, the plant would occupy up to 40 acres near the center of the property, with the remainder available for lease as agricultural land. **PROJECT DESCRIPTION Figure 1** depicts the regional setting of the property.

In order to reliably connect the EAEC to the California Grid the proposed power plant would require:

1. A new substation, in this document referred to as the EAEC 230-kV switchyard (in Western's DFIS referred as Tracy East).
2. Two 0.5 mile double circuit 230-kV lines to intercept the existing Tracy-Westley 230-kV double circuit line (currently operating in a single circuit configuration).
3. Adding bays 13 & 14, with a double bus double breaker configuration, in the existing 230-kV Tracy Substation.
4. Converting the existing bays 1 through 12 in the existing 230-kV Tracy Substation to a double bus double breaker configuration.

New electrical equipment would also be installed within the existing boundaries of the Tracy and Westley Substations.

Natural gas for the facility would be delivered via approximately 1.8 miles of new 20-inch pipeline that would connect to Pacific Gas and Electric's (PG&E) existing gas pipeline. From the project site, the pipeline would run south along Mountain House Road, turning west at Kelso Road, and then south along the eastern side of the Delta Mendota Canal to the PG&E main line.

The applicant plans to supply the plant's cooling and process water requirements (averaging about 4,600 acre-feet per year) with raw (i.e. untreated) water from the Byron Bethany Irrigation District (BBID), via a 2.1-mile pipeline. The applicant also indicated in their AFC that, as the community of Mountain House is developed and recycled water becomes available, BBID would be able to serve the facility in part with recycled water, offsetting raw water use. Note that staff is recommending that the applicant be required to eventually serve the project with 100% recycled water.

The project as proposed includes a zero-liquid discharge system designed to eliminate off-site disposal of wastewater. This represents a change from the original proposal to use evaporation ponds. Using the zero-liquid discharge system, process wastewater would be reclaimed and reused to the extent possible. Cooling water would be cycled three to eight times (depending on water quality) in the cooling tower; wastewater would then be directed to a brine crystallizer. Sanitary wastewater from sinks and toilets would be discharged to an onsite septic tank and leach field.

Associated equipment would include emission control systems necessary to meet the proposed emission limits. Oxides of nitrogen (NO_x) emissions will be controlled using a combination of low NO_x combustors in the combustion turbine generators (CTGs) and

selective catalytic reduction systems in the heat recovery steam generators (HRSGs). A carbon monoxide catalyst would be installed in the HRSGs to limit CO emissions from the CTGs. The applicant has proposed to minimize the emissions of NO_x to 2.5 parts per million (ppm), and carbon monoxide (CO) to 6 ppm, while maintaining the slip of ammonia (NH3) emissions to 10 ppm. However, the Final Determination of Compliance from the Bay Area Air Quality Management District is requiring that the applicant reduce the emissions to 2 ppm for NO_x, 4 ppm for CO, and 5 ppm for NH3.

The project is estimated to have a capital cost of between $400 and $500 million. The applicant plans to begin construction in 2003 and complete construction in 2005. The project would result in a peak of approximately 400 construction jobs over a 2-year period and up to 40 skilled operational positions throughout the life of the project.

The applicant has a contract with the California Department of Water Resources to provide power to the state.

PUBLIC AND AGENCY COORDINATION

In preparing the FSA/EA, Energy Commission and Western staff conducted several publicly noticed joint workshops. These workshops served not only to allow discussion between staff and the applicant, but also to hear from intervenors, interested agencies, and members of the public. One of the public meetings was a NEPA scoping meeting held in Livermore, California on November 14, 2001. “Scoping” provides anyone who is interested the opportunity to identify any issues of concern, to inform Western and the Energy Commission about potential environmental impacts, offer suggestions to improve the proposal, and suggest alternative actions.

Staff also has coordinated directly with relevant local, state and federal agencies, such as the California Independent System Operator (Cal-ISO), Bay Area Air Quality Management District (BAAQMD), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and the Central Valley Regional Water Quality Control Board. Further, Western has consulted with the U.S. Fish and Wildlife Service and the Native American Heritage Commission, and will complete consultation with the State Historic Preservation Office under its obligations for the National Historic Preservation Act before issuing a FONSI or, if an EIS is required, a Record Of Decision. Western has met its obligations under the Endangered Species Act and will continue nation-to-nation consultations with interested Native Americans.

Written comments received from members of the public, and letters from agencies that require some form of response, have been included in this FSA. Comments received from intervenors were considered in preparing this document.

STAFF’S ASSESSMENT

Each technical area section of the FSA/EA contains a discussion of impacts, and where appropriate, mitigation measures and conditions of certification. The FSA/EA includes staff’s assessments of:

the environmental setting of the proposal;

impacts on public health and safety, and measures proposed to mitigate these impacts;

environmental impacts, and measures proposed to mitigate these impacts;

the engineering design of the proposed facility, and engineering measures proposed to ensure the project can be constructed and operated safely and reliably;

project closure;

project alternatives;

compliance of the project with all applicable LORS during construction and operation; and

proposed conditions of certification.

OVERVIEW OF STAFF'S CONCLUSIONS

Environmental / System Impacts and LORS

Staff's analysis indicates that the project's environmental impacts can be mitigated to levels of less than significant in all areas except for Visual Resources. Staff's analysis also indicates that the project can be made to conform with all LORS. Below is a summary of the potential environmental impacts and LORS compliance for each technical area.

Technical Discipline	Environmental / System Impact	LORS Conformance
Air Quality	Impacts mitigated	Yes
Biological Resources	Impacts mitigated	Yes
Cultural Resources	Impacts mitigated	Yes
Power Plant Efficiency	None	N/A
Power Plant Reliability	None	N/A
Facility Design	N/A	Yes
Geology & Paleontology	Impacts mitigated	Yes
Hazardous Materials	Impacts mitigated	Yes
Land Use	Impacts mitigated	Yes
Noise	Impacts mitigated	Yes
Public Health	None	Yes
Socioeconomics	None	Yes
Traffic and Transportation	Impacts mitigated	Yes
Transmission Line Safety	None	Yes
Transmission System Engineering	Impacts mitigated	Yes
Visible Plumes	None	Yes
Visual Resources	Significant unmitigable impact	Yes
Waste Management	None	Yes
Water and Soils	Impacts mitigated	Yes
Worker Safety	None	Yes

Summarized below are staff's conclusions regarding a few of the technical areas that have been difficult to resolve: air quality, biological resources, hazardous materials, land use, noise, soil and water resources, and visual resources.

Air Quality

The EAEC as proposed has the potential to create significant impacts to local and regional air quality. Staff found that the project's emissions of oxides of nitrogen (NOx) and volatile organic compounds (VOC) have the potential to cause significant impacts relative to the state and federal 1-hour ozone air quality standards. Further, the project's emissions have the potential to cause significant impacts relative to the state 24-hour PM10 (particulate matter less than 10 microns in diameter) air quality standard. The project would also contribute to existing violations of the recently promulgated federal 8-hour ozone and 24-hour PM2.5 standards. However, the significance of these contributions is uncertain because the monitoring and attainment designations have not been completed.

The proposed location for the EAEC is in Alameda County and within the jurisdictional boundaries of the Bay Area Air Quality Management District (BAAQMD), but very near the border with San Joaquin County and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Because the proposed site is east of the Altamont pass, the project's emissions would directly affect air quality in the SJVAPCD.

Under BAAQMD rules, the project applicant must offset air quality emissions, and can accomplish this by purchasing emission reduction credits (ERCs) anywhere within the BAAQMD territory. The applicant has satisfied BAAQMD offset requirements by purchasing Bay Area Emission Reduction Credits (ERCs) far to the west of the project site and of the Altamont Pass, where the offsets would result in only a small reduction of pollution transport into the area impacted by the project. Staff has determined that these ERCs are inadequate to fully mitigate the location and magnitude of local air quality impacts that would be caused by the project.

The applicant put forth a proposal designed to provide air quality benefits to offset the residual air quality impacts identified by staff. Staff evaluated this proposal and found that the proposal would be insufficient, both in terms of the tons of air pollution reduced, and in the specificity and enforceability of the measures proposed. Staff has identified two ways in which the applicant can fully mitigate the project's local air quality impacts. The first option, and staff's preferred method, would be for the applicant to implement specific local air quality improvement programs to create actual emission reductions. In devising this mitigation option, staff incorporated some of the elements of the applicant's "consensus" proposal into an air quality improvement program that can fully mitigate the project's local air quality impacts. The second option would be for the applicant to purchase ERCs from the SJVAPCD in quantities sufficient to offset staff's identified residual impacts. Staff would prefer that all feasible actual emission reduction scenarios be explored first, and that when those scenarios are exhausted, then any remaining emissions shortfall be met through the acquisition of ERCs from the SJVAPCD offset bank.

The project as proposed does not comply with the Bay Area District's Best Available Control Technology (BACT) requirements for NOx and CO emissions, and does not meet U.S. Environmental Protection Agency and California Air Resources Board guidelines for NH3 emissions. However, the Bay Area District's conditions, which are contained in staff's proposed conditions of certification, will require the project to meet the District's BACT requirements. With full implementation of staff's proposed conditions of certification, the project will meet this and all other applicable LORS.

Biological Resources

The project area is part of a critical habitat pinch-point for the northern satellite population of the San Joaquin kit fox, a Federal and State listed species. Habitat mitigation that compensates for habitat loss and protects local habitats has been under review by staff in consultation with CDFG and USFWS. The applicant has proposed to mitigate for significant adverse impacts to listed species by purchasing mitigation habitat. Specifically, the applicant proposes to place a conservation easement on the Gomes Farms property, a 151-acre parcel that lies approximately one mile west of the EAEC project site. The applicant would further prepare a management plan, and establish an endowment to manage the land in perpetuity based upon a Property Analysis Report (PAR). The PAR will be conducted through the Center for Natural Lands Management (CNLM). The mitigation land would be managed by a qualified third party natural land management organization approved by Energy Commission staff, USFWS, CDFG, and Western.

While earlier versions of landscaping plans were found to create unacceptable biological impacts, the most recent landscaping plan proposed by the applicant was deemed adequate by the CDFG and USFWS. In contrast to the original landscaping plan, the applicant's final plan would minimize the use of large trees, limit the extent of landscaping within the project footprint, provide a substantial number of native plant species, and maintain a ground clearance of 3 feet for all vegetation. Staff concurs with the position of CDFG and USFWS, that the area within which the EAEC is located in a critical habitat pinch-point for the San Joaquin kit fox. Further degradation in habitat quality and quantity (including connectivity) from additional landscaping, would cause significant adverse impacts to the kit fox population. Though staff would prefer no landscaping around the project from the perspective of protecting the kit fox from predation and habitat degradation, the April 3, 2002 landscaping plan, combined with the applicant's proposed management of the landscaping, would minimize impacts. Staff has proposed conditions of certification that would mitigate all biological impacts to less than significant, and has further proposed conditions that, when fully implemented, would allow the project to conform to all biological resource-related LORS.

Hazardous Materials

Anhydrous ammonia and natural gas are the only hazardous materials proposed for use at the power plant that may pose a risk of off-site impacts. Large amounts of anhydrous ammonia would be used in controlling the emission of oxides of nitrogen (NO_x) from the combustion of natural gas in the facility. The applicant has proposed state-of-the-art engineering controls for the containment of anhydrous ammonia, and staff has found that these controls, combined with the applicant's proposed administrative controls, will prevent off-site consequences should there be an accidental spill.

Staff also evaluated the risks associated with the transportation of anhydrous ammonia to the site. The anhydrous ammonia would be transported to the facility via U.S. Department of Transportation-certified tanker truck. While the risk associated with transportation of anhydrous ammonia is very low and well within accepted norms, as discussed in the Hazardous Materials Management section of this FSA, it is readily feasible to use aqueous ammonia. However, staff found that aqueous ammonia provided little if any risk reduction to in-route populations. Therefore in the absence of significant risk from use of anhydrous ammonia at this proposed facility, staff found no basis for requiring use of aqueous ammonia based on transport risks.

Anhydrous ammonia has been identified by the U.S. Environmental Protection Agency (U.S. EPA) as a hazardous material for which special site security measures must be developed and implemented to ensure that unauthorized access is prevented. In order to ensure that this facility or a shipment of anhydrous ammonia to this facility is not the target of unauthorized access, staff's proposed General Condition of Certification on Construction and Operations Security Plan COM-8 will require the project owner to prepare a Vulnerability Assessment and implement Site Security measures consistent with the U.S. EPA requirements.
Staff's evaluation of the proposed project (with staff's proposed mitigation measures) indicates that hazardous materials use will not pose a significant risk of impacts on the public. Furthermore, with adoption of staff's proposed conditions of certification, the proposed project will comply with all applicable LORS.

Land Use

The project site is located on land that is zoned as large parcel agricultural. If not for the Energy Commission's "in-lieu of" status, the project would be required to obtain a conditional use permit from Alameda County, which in turn would require that the County make certain findings. Staff has received the conditional use permit findings from Alameda County. Staff believes that the project's consistency with: (1) the County's land use designation and zoning for the site, and (2) the current development pattern for the area established by the East County Area Plan (ECAP), as amended by Measure D, is unclear. Although staff does not completely agree with the conclusions of the County, such conclusions are plausible and staff therefore defers to the County's interpretation of their own guidelines, standards, policies and conclusions that the EAEC is a consistent and allowed use.

The project's construction would result in the conversion of 40 acres from an agricultural use to a non-agricultural use and would involve the loss of land considered "Prime Farmland" by the California Department of Conservation. Staff considers the loss and conversion of agricultural land to be inconsistent with ECAP policies and Association of Bay Area Governments (ABAG)'s Preservation of Agricultural Resources policies, and potentially a significant impact under CEQA. In order to help offset the project-related impacts from the loss of agricultural land, Calpine, in coordination with Alameda County, has proposed mitigation including the contribution of funds to Alameda County for a 1:1 purchase of prime agricultural land for permanent farming use and/or easement purchases. Staff supports the County's successful effort to reach a mitigation agreement with the applicant regarding the conversion and loss of productive agricultural land, which is a potentially significant impact. After reviewing the final agreement, staff concludes that the payment of the $1 million fee agreed upon in the Farmlands Mitigation Agreement, in conjunction with Condition of Certification LAND-7, will mitigate the impacts of this project to a less than significant level.

Noise

The proposed project could result in a substantial permanent increase in ambient noise levels at sensitive receptors, which may be considered a significant impact. The local noise environments in rural areas may be very quiet, with few discernable ambient noise sources. A power plant will introduce a new noise source with a distinctive acoustical character, quite different from typical ambient noise. In rural areas, the increases in ambient noise levels at sensitive receptors due to power plant operations may be relatively large, depending upon plant design, distance to the sensitive receptors, and whether other structures, topography, or noise sources affect power plant sound transmission. In the case of the proposed project, achieving power plant noise levels that ensure there will be no substantial increase in ambient noise levels would be problematic because homes on nearby agricultural parcels, the Livermore Yacht Club, and one school are located within about 1.5 miles from the plant site, and ambient noise levels are relatively low (well below LORS standards). If constructed as the applicant has proposed, the project's noise level at the nearest sensitive receptors would represent an increase of up to 13 dBA over the nighttime ambient background noise levels. Such increases in background noise levels would profoundly alter the noise regime in the project vicinity, and would cause a significant impact. To mitigate this impact, staff is proposing a condition of certification that would require the applicant to

reduce the plant's noise output measured at the nearest residence, to a level that would only slightly increase ambient nighttime noise levels. If this and all other recommended Conditions of Certification are implemented, impacts will be less than significant and the project, if built, would comply with all applicable LORS.

Soil and Water Resources

The applicant has proposed to supply the project's non-potable water needs with fresh inland (raw) water. The applicant also indicated in their AFC that, as the community of Mountain House is developed and recycled water becomes available, the Byron Bethany Irrigation District (BBID) would be able to serve the facility in part with recycled water, offsetting raw water use. However, the applicant as yet has not made any firm commitments for this recycled water. While staff has established the willingness of Mountain House to commit all recycled water it produces for use at EAEC, the applicant has conditioned its willingness to implement use of recycled water on whether it becomes available under terms and conditions solely acceptable to itself. For the purposes of the Energy Commission's analysis of the AFC, staff's analysis considered the effects of both cases: assuming the plant would rely solely on raw water, and assuming the plant would fully utilize recycled water as it becomes available from Mountain House.

Staff has determined that EAEC's proposed use of high quality fresh inland water for cooling, process water, and other non-potable uses, when recycled water is available, would constitute a significant impact. Absent the maximum implementation of recycled water use by EAEC, staff believes the sole use of fresh water by the project for non-potable needs could diminish local water supply, potentially depriving BBID's other customers of fresh water or resulting in inadequate supplies to the EAEC project itself. Staff believes that potentially significant adverse cumulative impacts to other fresh water users (i.e., residential and agriculture) could result if EAEC does not maximize its use of recycled water for cooling and other non-potable requirements. The Mountain House Community Services District has committed to supply all of its recycled water for use by EAEC.

The use of reclaimed water for cooling is well proven and could serve 100 percent of the project's non-potable water demands prior to 2020. Several sources of recycled water suitable for meeting EAEC's non-potable requirements are being developed in the area and will be available by as early as 2003. Staff also has concluded that recycling of the storm water to the cooling tower basin is a reasonable and economic means to conserve water. Staff's proposed conditions of certification require that the project utilize recycled water for all of its non-potable operational requirements as soon as possible, but no later than January 1, 2020.

With full implementation of staff's proposed conditions of certification, the proposed EAEC project will comply with applicable LORS, be consistent with established state policy regarding the conservation of fresh water supplies, and avoid significant impacts to other fresh water users.

Visual Resources

Although the proposed power plant facility would be located near transmission lines and a substation, staff concludes that the facility would be inconsistent with the existing rural character of the general area. Furthermore, the proposed facility would be visible from recreational areas and would affect panoramic scenic views.
The applicant's proposed visual resources mitigation measures and screening plan, and staff's proposed mitigation measures and conditions of certification had the potential to mitigate the visual impacts of the proposed project. However, biology staff of the Energy Commission, CDFG, and USFWS were concerned about potential biological impacts of the proposed landscaping. Although a landscaping plan has been developed that was deemed to be adequate by the CDFG and the USFWS, the plan does not adequately reduce the visual impact of the proposed project. Staff therefore concludes that the project would result in unmitigable significant impacts to visual resources.

Staff concluded that the proposed project structures would be inconsistent or partially inconsistent with seven of Alameda County's LORS, two of which would constitute an adverse but not significant impact, another two of which could be mitigated to a level of less than significant, and two more that would constitute a significant, unmitigable impact. The Alameda County Planning Department, however, has found that the project would be consistent with all of the county's applicable LORS. Consistent with California Code of Regulations, title 20, section 1714.5(b), staff gives due deference to Alameda County's determination that the project complies with the visual resources LORS under its jurisdiction. Therefore, staff's determination is that the project is consistent with all applicable LORS.

Environmental Justice

EPA guidelines on environmental justice state that if 50 percent of the population affected by a project has minority or low-income status, it must be determined if these populations are exposed to disproportionately high and adverse human health or environmental impacts.

Environmental Justice Screening Analysis

Census 2000 data indicate that the minority population within the six-mile radius of the project site is 34 percent. However, there are areas that have two or more contiguous census blocks with a minority population greater than 50 percent. Staff considers these areas to be pockets of predominately minority populations.

The percent of population considered low-income or living below the poverty level ranges from 16 percent in San Joaquin County to 7 percent in Contra Costa County. In 1990, the percentage of the population living below the poverty level was 10 percent within a six-mile radius of the EAEC. This percentage is well below the threshold of greater than 50 percent that staff uses to determine if there is a significant low-income population.

When a minority and/or low-income population is identified, as is the case for this project, staff in the technical areas of air quality, public health, hazardous materials, noise, water, waste, traffic and transportation, visual resources, land use, socioeconomics and transmission line safety and nuisance must consider possible

impacts on the minority/low-income population as part of their analysis. This "environmental justice" (EJ) analysis consists of identification of significant impacts (if any), identification of mitigation, and determination of whether there is a disproportionate impact if an unmitigated significant impact has been identified.

Environmental Justice Findings

Staff has evaluated the potential for unmitigated or disproportionate adverse impacts on EJ populations in the vicinity of the proposed EAEC, and found none.

Project Alternatives

The purpose of the alternatives analysis is to comply with State and Federal environmental laws by providing an analysis of a reasonable range of feasible alternative sites which could substantially reduce or avoid any potentially significant adverse impacts of the proposed project. In doing so, it is important to note that the Energy Commission's authority is limited to either approving or denying the EAEC at the site proposed by Calpine. The Energy Commission does not have the authority to approve an alternative or require Calpine to move the proposed project to another location, even if it identifies an alternative site that meets the project objectives and avoids or substantially lessens one or more of the significant effects of the project. If Calpine were to decide to build a power plant at another site, a new Application for Certification would need to be filed and the review process would begin anew for that site.

Staff's alternatives analysis describes a range of reasonable alternatives to the proposed project, or to the location of the project, that could feasibly attain the basic project objectives but would avoid or substantially lessen any of the significant effects of the project. The assessment also evaluates the comparative advantages and disadvantages of the various alternatives in less detail than the analysis of the project, but in a manner sufficient to inform the decision making process.

Staff identified and reviewed 4 alternative sites, all of which have their own set of unique issues and potential impacts. Overall, the four site alternatives considered in this section offer some advantages and disadvantages in comparison to the proposed project. However, none of the alternative sites appear to reduce the potentially significant adverse impacts of the project without causing additional potentially significant adverse impacts themselves.

One of the applicant's primary objectives for the project is to be online by 2005. The California Department of Water Resources (DWR) has a contract with the applicant to provide electricity from this facility. In order to satisfy the contract, the applicant must receive Energy Commission certification by November 30, 2002 or 90 days thereafter. Staff believes both the contract and the projected online date are key elements that support the needed development of California's electricity supply. Implementation of an alternative site would require that the applicant submit a new AFC, including revised engineering and environmental analysis; this more rigorous AFC-level analysis of any of the alternative sites could reveal environmental impacts, non-conformity with laws, ordinances, regulations, and standards, or potential mitigation requirements that were not identified during the more general alternatives analysis presented herein. None of

the alternatives would allow the applicant to meet the DWR contract requirements or the objective of being online by 2005.

For purposes of the NEPA process, Western has determined that none of the siting alternatives analyzed under the staff alternatives analysis are consistent with Western's purposes and need to provide non-discriminatory open transmission line access.

CONCLUSION AND RECOMMENDATIONS

If the Energy Commission determines that a proposed project would result in unmitigated significant adverse impacts to public health and safety, the environment, or the electric transmission system, the Commission must make findings of overriding consideration in order to certify the project. In particular, the Energy Commission must specifically find that: (1) specific considerations make infeasible the mitigation measures or project alternatives identified in the proceeding; and (2) that the benefits of the project outweigh the unavoidable significant adverse environmental effects that may be caused by the construction and operation of the facility (Cal. Code Regs., tit. 20, § 1755(d)).

Pursuant to item (1) above, staff has found a significant adverse impact to visual resources for which mitigation is infeasible because of a conflicting biological concern. To mitigate for the impacts to visual resources would require the planting of substantial numbers of trees for screening, which would degrade the quality of the habitat for San Joaquin kit fox, and increase the potential for predation on this species. This would cause a significant biological impact. Staff and applicant worked with USFWS and CDFG, and put considerable time and effort into the exploration of landscaping designs that could satisfy both visual and biological concerns without causing significant impacts to either. However, because this site is considered to be a critical habitat pinch-point for kit fox, there is no room for altering the landscaping plan without causing significant impacts to biological resources. After considering all of the options, and the fact that the San Joaquin kit fox is a Federal and State listed species, staff concluded that the importance of avoiding additional impacts to this endangered species made the visual resources mitigation infeasible.

As described above, staff has also determined that none of the alternatives would allow the applicant to meet the DWR contract requirements or the objective of being online by 2005. In addition, none of the alternative sites analyzed by staff appear to reduce the potentially significant adverse impacts of the project without causing additional potentially significant impacts themselves. Therefore, it is staff's position that none of these project alternatives are feasible.

Pursuant to item (2) above, Energy Commission staff concludes that the project's potential electric system benefits substantially outweigh the projects potential impacts to visual resources. According to the Energy Commission's *2002-2012 Electricity Outlook Report* (February 2002), the supply market in 2005 and beyond is of concern.

To prevent tight supplies from materializing in the year 2005 and beyond, the State of California has been working on modifications to the electricity market, pursuing upgrades in the transmission system (most notably Path 15 upgrades), developing

energy conservation programs (e.g., the “Flex Your Power” campaign and the “20/20 Program”), and has entered into a series of long-term contracts. One of these contracts is with Calpine for the East Altamont Energy Center to provide long-term supplies to California's electric system at fixed contract prices. This contract and project is a small but critical part of the overall strategy to provide California with an adequate supply of electricity for economic growth and prosperity, stable electric prices, and a reliable electric system for the future (2005 and beyond).

Because the State of California is relying on the electrical output from this power plant, staff recommends that the Commission approve the East Altamont Energy Center Application for Certification, including staff’s proposed conditions of certification, with overriding considerations.